## NOTES ON MITES OF THE FAMILY TYDEIDAE (ACARINA) WITH DESCRIPTIONS OF TWO NEW SPECIES

BY EDWARD W. BAKER

Bureau of Entomology and Plant Quarantine, United States
Department of Agriculture

### TRIDILATYDEUS Baker 1946

The genus Tridilatydeus Baker, type Tridilatydeus minutus Baker, was established in 1946, Anales de la Escuela de Ciencias Biologicas, vol. IV, Nos. 2-3, June 1946, p. 257. That paper was intended as the first in a series on the family Tydeidae, but unfortunately, owing to delay in publication, the generic name Tridilatydeus was used prior to its validation in 1946, in three papers which appeared in 1943 and 1944 treating six species. These species were thus represented only by manuscript names. It is the purpose of this note to validate the following names as of the present date and publication:

Tridilatydeus stonci Baker, p. 187, and T. korsmeiri Baker, pp. 187, 188, Revista de la Sociedad Mexicana de Historia Natural, Tomo IV, Nos. 3-4, December 1943.

Tridilatydeus hirsutus Baker, p. 75, Revista de la Sociedad Mexicana de Historia Natural, Tomo V, Nos. 1-2, June 1944.

Tridilatydeus globeriferus Baker, pp. 160, 161, T. fragarius Baker, p. 161, and T. robustus Baker, p. 162, Proceedings Entomological Society of Washington, vol. 46, No. 6, June 1944.

### Retetydeus doddsi Baker

Retetydeus doddsi Baker, 1944, Revista de la Sociedad Mexicana de Historia Natural, V (1, 2): 79, 80, June.

Lorryia balocki Baker, 1944, Anales del Instituto de Biologia, Mexico, XV (1): 216, 217. (New synonymy.)

Retetydeus and Lorryia are similar in having a reticulate dorsal pattern, but the two are distinct in that Retetydeus possesses several dorsal bosses or swellings, whereas Lorryia has the normal rounded dorsum. In mounting, some of the specimens of Retetydeus were flattened so that they appeared to belong to the genus Lorryia and were described as such. Further study has shown doddsi and balocki to be the same. The description of R. doddsi was published in June 1944. No publication date other than the year was found for the volume containing the description of L. balocki, but, since that volume was received in Washington, D. C., October 28, 1944, doddsi has been selected as having priority.

#### Tydeus zempoalensis Baker

Tydeus zempoalensis Baker, 1943, Revista de la Sociedad Mexicana de Historia Natural, IV (3, 4): 182.

Tydeus popocatepetlensis Baker, 1943, Revista de la Sociedad Mexicana de Historia Natural, IV (3, 4): 183, 184. (New synonymy.)

It was stated in the original description of *Tydeus popocata- petlensis* that the dorsal setae were simple. This was the principal character used to separate it from *T. zempoalensis*. However, it has since been found that these setae are pilose as in *T. zempoalensis* and further study has shown the mites to be the same.

Opportunity is here taken to present the description of two new species, one collected in the United States by W. F. Turner during a survey of the insects in the soil of peach orchards, and the other collected in Mexico by F. Bonet.

## Coccotydeus turneri, new species

(Fig. 1)

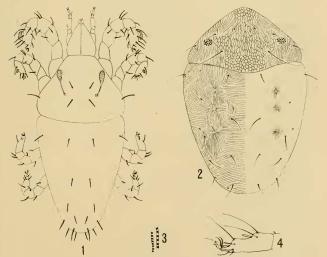
Female.—A very small mite; color unknown; simple suture between propodosoma and hysterosoma. Skin finely striated. Rostrum normal, with an anterior pair of ventral setae and a posterior pair of ventral setae which cross under segment I of palpi. Palpi small, segment II about 7  $\mu$  long, with a short basal seta; segment III about 3  $\mu$  long, with a long and a short setae; segment IV about 5  $\mu$  long with three very short terminal setae. No eyes visible. Propodosomal sensory setae as figured, clublike, pilose, rounded distally; propodosomal and hysterosomal setae short, about 8  $\mu$  long; all dorsal body and all leg setae strong, pilose. Tarsi I and II each with a large sensory organ as figured, that on tarsus I much larger and directed forward, and that on tarsus II more or less globular. Pulvilli apparently haired. Length of body 113  $\mu$ ; including rostrum 139  $\mu$ ; width 58  $\mu$ .

The type female, U. S. National Museum No. 1711, was taken from peach orchard soil, Escambia County, Ala., July 15, 1936, by W. F. Turner. Three paratypes were collected from peach orchard soil, Upson County, Ga., July 23, 1936, by W. F. Turner.

Coccotydeus turneri is distinguished from the others in the genus in having strongly pilose dorsal setae; in having the sensory setae between the anterior and posterior row of propodosomal setae rather than in either row; in having palpal segment IV short (apparently about half as long as in the other species); and in having very large sensory organs on tarsis I and II, that on tarsus II being much larger than that on tarsus II.

## Lorryia chiapensis, new species (Figs<sub>4</sub>,2.4)

Female.—Small mite; color unknown; body narrowing slightly to gear; body suture entire, bowed posteriorly; dorsal striations appear to be formed of double lines with tubercles between as figured. Dorsal skin pattern distinctive; a reticulate pattern between the eyes and extending length of propodosoma, the reticulate elements of central portion longer than wide. Rest of body striated as figured, with three pairs of lateral whorls on hysterosoma; striations broken into irregular patterns around setal bases. Venter of mite covered with striations. Rostrum almost hidden by anterior portion of body; with two pairs of short anterior setae and a posterior pair of longer setae which cross under segment I of palpus. Palpal segment I, 9 μ long by 12 μ wide; segment II, 22 μ long by 13  $\mu$  wide; segment III, 4.5  $\mu$  long by 6  $\mu$  wide; segment IV. 19  $\mu$  long by 6  $\mu$  wide, clublike, with short terminal setae. Two eye spots between lateral propodosomal setae. All dorsal setae simple; propodosomal setae 19 \mu long; propodosomal sensory setae 56 \mu long; setae of the two posterior rows on hysterosoma about 24 \mu long; other hysterosomal setae about 19 \mu long. Leg I short, about 130 \mu long; leg setae simple; tarsus I as figured, with a short clublike sensory organ. Length of body 266 \(\mu\); including rostrum only a few microns longer; width of mounted specimen 200 μ.



Coccotydeus turneri, new species. Fig. 1, Dorsal view of female. Lorryia chiapensis, new species. Fig. 2, Dorsal view of female. Fig. 3, Dorsal striae. Fig. 4, Tarsus I.

The type female, U. S. National Museum No. 1712, was collected in leaf mold, El Vergel, Chiapas, Mexico, January 3, 1940, by F. Bonet. Two paratypes were collected at the same locality January 20, 1943, by F. Bonet, and are deposited in his collection in Mexico City.

The reticulate pattern distinguishes this species from the others in the genus.

# NEARCTIC SPECIES OF THE GENUS DIRHINUS (Hymenoptera-Chalcididae)

By B. D. Burks, Illinois Natural History Survey

The genus *Dirhinus* is represented in the Oriental and African regions by several fairly common and widely distributed species. *Dirhinus* has, on the other hand, only a few, relatively rare species in the Nearctic region. Up to the present time, but two species, occurring in the Gulf Coast and Southwestern states, have been known in this region. It is, thus, quite interesting to find that two additional species of *Dirhinus* occur in Indiana and Illinois. Descriptions of these two new species are given in this paper.

#### Genus DIRHINUS Dalman

Dirhinus Dalman, Svensk. Vet.—Akad. Handl., 39:75, 1818.—Nees ab Esenbeck, Hymenopterorum Ichneumonibus Affinium, vol. 2:54, 1834.—Foerster, Hymenopterologische Studien, vol. 2:29, 1856.—Walker, Notes on Chalcidiae, pt. 3; 39, 1871.—Ashmead, Ent. Amer., 4:87, 1888.—Ashmead, Mem. Carnegie Mus., 1:257, 1904.—Schmiedeknecht, Gen. Ins., fasc. 97:67, 1909.—Burks, Proc. Nat. Acad. Sci. 22:285, 1936.

Eniaca Kirby, Jl. Linn. Soc. Lond., Zool., 17:57, 1883.

Hontalia Cameron, Bio. Cent.—Am. Zool., pt. 10, vol. 1:112, 1884.

Pareniaca Crawford, Proc. U. S. Nat. Mus., 45:312, 1913.

The following combination of characters will distinguish the members of the genus *Dirhinus* from all other members of the superfamily Chalcidoidea:

Head produced anteriorly on either side of antennal scrobe cavity, so that, in dorsal aspect, head appears to bear a pair of short, blunt horns, as in figs. 4-6; each of these horns bears, dorsally, a small platform or hieria, fig. 5; each hieria bounded laterally, mesally, and anteriorly by a low, thin, upturned border. Antennae 13-segmented, inserted low on face, near clypeal margin. Hind femora enlarged, bearing, on outer ventral margin, a fairly large, blunt basal tooth and numerous, minute and closely-set following teeth; hind tibia arcuate, bearing one terminal spur. Dorsal surface of propodeum almost parallel with longitudinal axis of body; abdomen petiolate; petiole parallel with longitudinal axis